



How trust and psychological safety mediate the influence of leadership on workplace flourishing in a high-reliability military context

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Abstract: This mixed-methods study examined the mediating roles of psychological safety and trust in the relationships between transformational leadership (TFL), authentic leadership (AL), and workplace flourishing (WPF) among personnel of the Ghana Armed Forces (GAF). An explanatory sequential design was employed. Quantitative data were collected from 292 military personnel (male = 65.5%, female = 34.5%, age range = 18–49 years, mean = 32.59 years, SD = 6.79 years) using structured questionnaires. Hypotheses were tested using Structural Equation Modelling and bootstrapping. Subsequently, 18 semi-structured interviews (male = 66.67%, female = 33.33%, mean = 33.5 years, SD = 8.48 years) were conducted to explain the quantitative findings. Quantitative results indicated that psychological safety fully mediated the TFL-WPF relationship but partially mediated the AL-WPF relationship, while trust did not mediate the TFL-WPF relationship. Qualitative findings revealed that the military's hierarchical structure inherently constrains psychological safety, making deliberate leader actions such as inviting input and demonstrating fallibility essential to create the safety necessary for flourishing. This study provides a nuanced understanding of the mechanisms linking leadership styles to wellbeing in a unique hierarchical context. It suggests that leadership development programmes in such organisations should move beyond inspirational training to explicitly focus on building leaders' capacity to foster psychological safety through transparency, active listening, and creating forums for safe voice.

Keywords: Psychological safety; workplace flourishing; transformational leadership; authentic leadership; trust; mixed methods

Introduction

Employee well-being is a cornerstone of organisational sustainability and performance (Kundi et al., 2021). In high-stakes environments like the military, promoting holistic workplace flourishing is vital for personnel resilience and mission success (Rothmann, 2013). Within the Ghanaian context, recent reports indicate a decline in employee well-being (Gallup, 2024), underscoring the urgency of this research. Leadership is widely recognised as a pivotal antecedent to employee well-being (Avolio et al., 2018). Both transformational leadership (TFL), which inspires and motivates followers towards a collective vision (Bass & Riggio, 2006), and authentic leadership (AL), characterised by self-awareness, transparency, and ethicality (Walumbwa et al., 2008, Alhalal et al., 2024), have been linked to positive employee outcomes. However, a critical gap exists in understanding the specific psychological mechanisms that transmit these leadership effects, particularly within the unique socio-cultural and structural context of an African military organisation.

The prevailing narrative, grounded in Social Exchange Theory (Blau, 1964), often positions trust as the primary mediator (Dirks & Ferrin, 2002). Meta-analytic evidence from civilian samples consistently demonstrates that trust significantly mediates the relationship between transformational leadership and employee well-being

(Ng, 2017, Peyton et al., 2023), suggesting this pathway is well-established in conventional organisational settings. This trust-mediated pathway may, however, overlook a more foundational condition in hierarchical contexts: psychological safety, defined as the shared belief that one can take interpersonal risks without fear of negative consequences (Edmondson, 1999). In a rigid hierarchy like the military, subordinates may trust a leader's competence but still feel unsafe to voice concerns or admit mistakes. This distinction suggests that the pathway from leadership to flourishing may be more complex (Hayes, 2018). This study therefore investigates the comparative mediating roles of psychological safety and trust in the relationships between TFL, AL, and workplace flourishing (WPF) within the Ghana Armed Forces (GAF). By employing a mixed-methods design, this paper seeks not only to test a theoretical model but also to provide rich, contextualised explanations for the statistical relationships observed.

The mediating role of trust and psychological safety

The relationship between leadership and employee outcomes is typically transmitted through key psychological mechanisms (Singh & Sarkar, 2019). Trust in leadership is defined as a psychological state comprising the intention to accept vulnerability based upon positive expectations of the leader's intentions, behaviour, and reliability



(Mayer et al., 1995, Iqbal et al., 2020). Psychological safety is the sense that one can speak up with ideas, questions, concerns, or mistakes without fear of being punished or ostracised (Edmondson, 1999; Kahn, 1990). While related, these constructs are conceptually distinct: trust is about confidence in the intentions of another person, whereas psychological safety is about the perceived consequences of taking interpersonal risks in a specific context.

Theoretical basis

This study draws on the Job Demands-Resources (JD-R) Theory (Bakker & Demerouti, 2017) and Social Exchange Theory (SET) (Blau, 1964) to explain the mechanisms through which leadership styles, trust, and psychological safety influence workplace flourishing (Cerfontyne, 2020) and task performance. JD-R emphasizes how transformational and authentic leadership function as job resources that mitigate the impact of high job demands. Trust in leadership and psychological safety are considered personal resources that mediate the relationship between leadership styles and outcomes (Moreno et al., 2021, Njoroge, 2024). SET complements this by explaining how employees who experience support, fairness, and authenticity from leaders feel compelled to reciprocate with greater commitment, engagement, and performance (Walumbwa et al., 2008; Edmondson, 1999). The integration of JD-R and SET provides a comprehensive theoretical lens for this study.

Goal of the study

We aimed to examine the relationships between transformational leadership, authentic leadership, and workplace flourishing, and the mediating roles of trust and psychological safety (See Figure 1 for the conceptual framework). Following Figure 1, we tested the following hypotheses:

H1a: Psychological safety mediates the relationship between transformational leadership and workplace flourishing.

H1b: Trust mediates the relationship between transformational leadership and workplace flourishing.

H2a: Psychological safety mediates the relationship between authentic leadership and workplace flourishing.

H2b: Trust mediates the relationship between authentic leadership and workplace flourishing.

H3: The mediating effect of psychological safety on the leadership-flourishing relationship has a statistically larger point estimate than the mediating effect of trust.

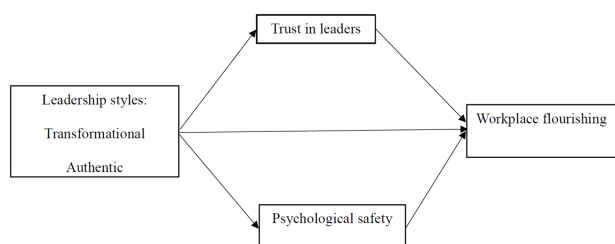


Figure 1. Conceptual framework

H4: Trust and psychological safety sequentially mediate the relationship between leadership styles and workplace flourishing.

This study's significance lies in exploring how employees may create flourishing behaviours in response to leadership. Findings would inform strategies that respect employees' own values while fostering acceptance of organizational values.

Method

Research design

A two-phase, explanatory sequential mixed-methods design (Creswell & Plano Clark, 2017) was employed to address the research objectives. The rationale for this approach was to use the qualitative data to provide a deeper, context-rich understanding of the statistical relationships identified in the quantitative phase, particularly the nuanced mediating roles of trust and psychological safety.

Participants and setting

Participants were 292 military personnel from the Ghana Armed Forces (Army = 154, Navy = 71, and Air Force = 67), selected using stratified random sampling technique at the 37 Military Hospital (65.5% male, 34.5% female; ages 18–49, $M = 32.59$, $SD = 6.79$). After the quantitative analysis, a purposive sampling technique was employed to select 18 participants from the 292 for the interviews. Selection criteria ensured maximum variation in experiences and perspectives based on rank, service branch, and years of service.

Measures

Transformational leadership. Transformational leadership was measured using the 20-item Multifactor Leadership Questionnaire (MLQ-5X) by Bass (2000). The scale captures idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. A sample item is: "My leader articulates a compelling vision of the future." Reliability was excellent ($\alpha = 0.92$).

Authentic leadership. Authentic leadership was assessed using the 16-item Authentic Leadership Questionnaire (ALQ) by Walumbwa et al. (2008). The instrument measures self-awareness, relational transparency, internalized moral perspective, and balanced processing. A sample item is: "My leader says exactly what he or she means." Reliability was high ($\alpha = 0.94$).

Psychological safety. Psychological safety was measured using the 7-item team psychological safety scale by Edmondson (1999), adapted to refer to the immediate team/unit within the military context. A sample item is: "It is safe to take a risk on this team." Reliability was good ($\alpha = 0.88$).

Trust in leader. Trust in leader was evaluated using a 6-item scale by Adams et al. (2008) assessing employee confidence in and reliance on their direct leader. A sample item is: "I can rely on my leader to keep his/her word." Reliability was high ($\alpha = 0.90$).

Table 1. Mean, standard deviation, reliability, and correlation including marker variable

Variable	M	SD	1	2	3	4	5	6
1. Transformational leadership	4.32	0.52	(0.92)					
2. Authentic leadership	4.20	0.60	0.45**	(0.94)				
3. Psychological safety	4.42	0.58	0.25**	0.27**	(0.88)			
4. Trust in leader	4.57	0.63	0.07	0.17**	0.29**	(0.90)		
5. Workplace flourishing	5.61	0.94	0.14*	0.26**	0.24**	0.35**	(0.95)	
6. Social desirability (Marker)	3.22	0.68	0.08	0.06	0.09	0.07	0.10	(0.76)

Note. $n = 292$. ** $p < 0.01$, * $p < 0.05$.

Workplace flourishing. Workplace flourishing was measured using the 17-item Flourishing-at-Work Scale–Short Form (FWS-SF) by Rautenbach (2015), assessing the tripartite model of well-being encompassing emotional, psychological, and social well-being. A sample item is: “I am engaged and interested in my daily activities at work.” Reliability was excellent ($\alpha = 0.95$)

Interview. A semi-structured interview protocol was developed to explore participants lived experiences of leadership, trust, psychological safety, and well-being. Example questions included: “Can you describe a situation where you felt comfortable voicing a concern to your superior?” and “How does the military hierarchy influence your willingness to speak up?” Interviews were conducted in a private setting, audio-recorded with permission, and lasted approximately 45–60 min each. They were subsequently transcribed verbatim for analysis.

Procedure

After getting ethical approval from the Ethics Committee for Humanities at the University of Ghana and the Institutional Review Board (IRB) at the 37 Military Hospital (Respective ethics clearance numbers: ECH 178/23-24 and 37MH-IRB/PhD/IPN/890/2024), data collection began with the support of unit commanders on-site. Consent of participants were sought. They were informed about the study’s aim, confidentiality and voluntary participation. Questionnaires were completed during personal time.

Data analysis

Quantitative data were analysed using SPSS 28.0 and AMOS 28.0. After data cleaning and screening for missing values, outliers, and normality, descriptive statistics were done as initial analysis and Pearson’s correlation was conducted to check the relationship between the demographic and main variables. A two-step approach to Structural Equation Modelling (SEM) was employed. First, Confirmatory Factor Analysis (CFA) was used to validate the measurement model and assess discriminant and convergent validity. Second, the structural model was tested to examine direct and indirect relationships. Mediation analyses were conducted using Hayes’ PROCESS Macro (Model 4 for parallel mediation; Model 6 for serial mediation) with 5000 bootstrap samples. Control variables (rank, service branch, and tenure) were initially included but omitted from the final model for parsimony as none had a significant direct effect on workplace flourishing and their inclusion did not alter the significance of hypothesized paths.

To assess the potential influence of common method variance (CMV), both procedural and statistical remedies were employed, following recommendations by Podsakoff et al. (2003). Procedurally, participants were assured of the confidentiality and anonymity of their responses to reduce social desirability bias. Statistically, a marker variable approach was utilized (Lindell & Whitney, 2001). A short form of the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972) was included as a marker variable theoretically unrelated to at least one study construct. This 10-item scale measures the tendency of respondents to present themselves in a socially favourable light (sample item: “I am always willing to admit when I make a mistake”). The scale demonstrated acceptable reliability ($\alpha = 0.76$). The marker variable exhibited weak and non-significant correlations with all substantive study variables (all $r < 0.11$, $p > 0.05$). This pattern suggests that common method variance is not a significant concern in this study and is unlikely to have inflated the observed relationships among the key constructs (Lindell & Whitney, 2001), (See Table 1).

To assess multicollinearity, variance inflation factor (VIF) and tolerance values were examined. All VIF values were below 5.0 and tolerance values exceeded 0.20 (Hair et al., 2010), indicating no multicollinearity concerns (See Table 2).

The measurement model was evaluated using CFA to confirm the distinctiveness of the five latent constructs. The five-factor model demonstrated good fit ($\chi^2/df = 2.11$, CFI = 0.96, TLI = 0.95, RMSEA = 0.06), with all factor loadings significant ($p < 0.001$) and exceeding 0.60, supporting convergent validity (See Table 3).

To establish discriminant validity, a rival model comparison was conducted. The hypothesized five-factor model was compared against a four-factor model where

Table 2. Multicollinearity diagnostics for predictor variables

Predictor variable	Tolerance	VIF
Transformational leadership	0.71	1.41
Authentic leadership	0.63	1.59
Trust in leader	0.79	1.27
Psychological safety	0.76	1.32

Note. Dependent Variable: Workplace Flourishing. Tolerance values >0.20 and VIF values <5.0 indicate no multicollinearity concerns.

Table 3. Confirmatory factor analysis—summary of factor loadings

Construct	Item range	Standardized factor loading range (λ)	Interpretation
Transformational leadership ($\alpha = 0.92$)	TFL13–TFL21	0.61 to 0.77	All loadings ≥ 0.60
Authentic leadership ($\alpha = 0.94$)	ALS1, ALS2, ALS3, ALS6, ALS7	0.63 to 0.81	All loadings ≥ 0.60
Psychological safety ($\alpha = 0.88$)	PSS1, PSS2, PSS3, PSS7	0.64 to 0.92	All loadings ≥ 0.60
Trust in leader ($\alpha = 0.90$)	PST4, PST5, PST6, PST7	0.79 to 0.91	All loadings ≥ 0.60
Workplace flourishing ($\alpha = 0.95$)	WPF1, WPF10, WPF11	0.60 to 0.80	All loadings ≥ 0.60

Note. $n = 292$.

Table 4. Comparison of measurement models for discriminant validity

Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	$\Delta\chi^2$	Δdf
Hypothesized 5-factor model	669.72	282	2.38	0.910	0.891	0.069	—	—
Rival 4-factor model (Trust & PSS combined)	854.22	286	2.99	0.862	0.840	0.083	184.5**	4

Note. $n = 292$. PSS = Psychological Safety. ** $p < 0.01$.

Table 5. Discriminant validity—Fornell-Larcker criterion

Variable	AVE	TFL	ALS	PSS	PST	WPF
1. Transformational leadership (TFL)	0.50	0.71				
2. Authentic leadership (ALS)	0.55	0.48	0.74			
3. Psychological safety (PSS)	0.67	0.27	0.27	0.82		
4. Perceived Supervisor Trust (PST)	0.74	0.06	0.19	0.34	0.86	
5. Workplace flourishing (WPF)	0.50	0.12	0.28	0.26	0.45	0.71

Note. Diagonal values (in bold) are the square roots of the Average Variance Extracted (AVE). Off-diagonal values are inter-construct correlations. Discriminant validity is established when diagonal values exceed off-diagonal values in the same row and column.

Trust and Psychological Safety were collapsed into a single factor. The five-factor model demonstrated significantly better fit ($\Delta\chi^2 = 184.5$, $\Delta\text{df} = 4$, $p < 0.001$), confirming that Trust and Psychological Safety are empirically distinct constructs (Fornell & Larcker, 1981) (See Table 4).

Discriminant validity was further supported using the Fornell-Larcker criterion, as the square root of the Average Variance Extracted (AVE) for each construct exceeded its correlations with all other constructs (See Table 5).

The structural model demonstrated good fit ($\chi^2/\text{df} = 2.41$, CFI = 0.94, GFI = 0.97, RMSEA = 0.07, SRMR = 0.08) and accounted for 39% of the variance in workplace flourishing ($R^2 = 0.39$).

Parallel mediation models were tested with trust and psychological safety as simultaneous mediators between the leadership styles and workplace flourishing (Preacher & Hayes, 2008) (summarised in Table 6). Building on these results, a sequential mediation model was tested to examine whether trust subsequently fosters psychological safety. Figure 2 presents the summarized result of the parallel and sequential mediation in a pictorial form.

Multi-group SEM analyses were conducted to assess invariance of mediation paths across gender and rank. Invariance was assessed by comparing constrained and

unconstrained models, with evidence for invariance indicated by a change in CFI (ΔCFI) of ≤ 0.01 (Chen, 2007; Cheung & Rensvold, 2002), (See Table 7).

For the qualitative analysis, transcribed interview data were analysed using thematic analysis following the six-phase approach outlined by Braun and Clarke (2006), with emerging themes discussed and refined between researchers to enhance credibility.

Results

Descriptive and correlational analyses

The means, standard deviations, scale reliability, and intercorrelations for all study variables are presented in Table 8. All key variables were positively and significantly correlated in the expected directions. It is noteworthy that psychological safety demonstrated a stronger bivariate correlation with workplace flourishing ($r = 0.66$, $p < 0.01$) than trust did ($r = 0.48$, $p < 0.01$), providing an initial indication of its relative importance.

Mediation results

The structural model demonstrated a good fit to the data ($\chi^2/\text{df} = 2.41$, CFI = 0.94, GFI = 0.97, RMSEA = 0.07, SRMR = 0.08). The predictor variables collectively

Table 6. Summary of parallel mediation analysis for workplace flourishing

Path	Indirect effect (β)	Boot SE	Bias-corrected 95% CI	Percentile 95% CI	Conclusion
Transformational leadership					
TFL $\rightarrow$ Psych. Safety $\rightarrow$ WPF	0.19	0.04	[0.11, 0.29]	[0.10, 0.28]	Significant mediation
TFL $\rightarrow$ Trust $\rightarrow$ WPF	0.04	0.03	[-0.02, 0.10]	[-0.03, 0.09]	No mediation
Authentic leadership					
AL $\rightarrow$ Psych. Safety $\rightarrow$ WPF	0.28	0.05	[0.18, 0.39]	[0.17, 0.38]	Significant mediation
AL $\rightarrow$ Trust $\rightarrow$ WPF	0.14	0.05	[0.05, 0.24]	[0.05, 0.23]	Significant mediation

Note. TFL, transformational leadership; AL, authentic leadership; WPF, workplace flourishing. Boot SE, Bootstrap Standard Error; CI, Confidence Interval. Bootstrapping based on 5000 samples. Mediation is considered significant only if both the bias-corrected and percentile confidence intervals exclude zero.

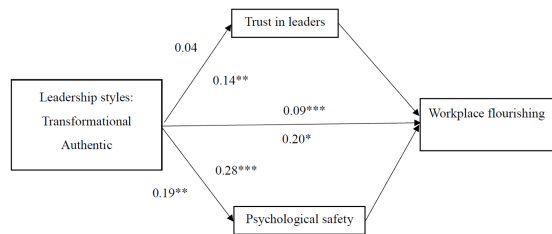


Figure 2. Graphical representation of the parallel and sequential mediation effects of psychological safety and trust in the relationship between transformational and authentic leadership and workplace flourishing. Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

explained a substantial proportion of the variance in the key endogenous variable. The model accounted for 39% of the variance in Workplace Flourishing ($R^2 = 0.39$), indicating that the model has strong explanatory power.

Parallel mediation of trust and psychological safety.

We tested parallel mediation models where trust and psychological safety were entered as simultaneous mediators between each leadership style and workplace flourishing. The results reveal a striking pattern for transformational leadership (TFL)—the indirect effect on flourishing via psychological safety was significant, with a point estimate of 0.19 (See Figure 2). Both the bias-corrected 95% confidence interval 0.11, 0.29 and the percentile 95% confidence interval 0.10, 0.28 did not include zero, confirming the mediation effect, thus, H1a was supported. In contrast, the indirect effect via trust was not significant, as both its bias-corrected 95% confidence interval ($\beta = 0.04$, 95% CI -0.02, 0.10—0.02, 0.10) and percentile 95% confidence interval ($\beta = 0.04$, 95% CI -0.03, 0.09—0.03, 0.09) included zero. Thus, H1b was not supported. This indicates that psychological safety is the sole mediator for TFL, fully explaining its effect on flourishing.

Table 7. Multi-group invariance tests for mediation paths

Model	χ^2	df	CFI	Model comparison	Δ CFI	Invariance supported?
Gender (Male vs. Female)						
1. Configural invariance	824.6	564	0.904	—	—	—
2. Structural path invariance	831.2	574	0.900	2 vs. 1	.004	Yes (Δ CFI ≤ 0.01)
Rank (Officers vs. NCOs)						
1. Configural invariance	856.3	564	0.896	—	—	—
2. Structural path invariance	868.1	574	0.889	2 vs. 1	.007	Yes (Δ CFI ≤ 0.01)

Note. $n = 292$ (Male = 191, Female = 101; Officers = 144, Non-Commissioned Officers (NCOs) = 148).

Table 8. Means, standard deviation, scale reliability, and correlations among study variables

Variable	M	SD	1	2	3	4	5
1. Transformational leadership	3.85	0.71	(0.92)				
2. Authentic leadership	3.92	0.75	0.68**	(0.94)			
3. Psychological safety	3.45	0.82	0.52**	0.61**	(0.88)		
4. Trust in leader	3.88	0.79	0.49**	0.65**	0.58**	(0.90)	
5. Workplace flourishing	3.65	0.87	0.41**	0.55**	0.66**	0.48**	(0.95)

Note. $n = 292$. ** $p < 0.01$. Statistically meaningful difference in the strength of these pathways.

The indirect effect of authentic leadership on flourishing via psychological safety was significant and substantial ($\beta = 0.28$). Both the bias-corrected 95% CI 0.18, 0.39 and the percentile 95% CI 0.17, 0.38 excluded zero, therefore H2a was supported. The indirect effect via trust was also significant, as both its bias-corrected 95% CI ($\beta = 0.14$, 95% CI 0.05, 0.24) and percentile 95% CI ($\beta = 0.14$, 95% CI 0.05, 0.23) excluded zero, though the effect was weaker. Therefore, H2b was also supported. This indicates that both mediators play a role, but psychological safety is the stronger pathway.

Hypothesis 3 proposed that the mediating effect of psychological safety would be stronger than that of trust. This hypothesis was strongly supported. For TFL, psychological safety was the only functioning mediator, as trust's confidence interval included zero. For AL, the point estimate of the indirect effect through psychological safety ($\beta = 0.28$, 95% CI 0.18, 0.39) was twice as large as the effect through trust ($\beta = 0.14$, 95% CI 0.05, 0.24), and the confidence intervals did not overlap, indicating a statistically meaningful difference in the strength of these pathways.

Sequential mediation from trust to psychological safety. The analysis revealed a significant sequential indirect effect for Authentic Leadership ($\beta = 0.09$). Both the bias-corrected 95% CI 0.04, 0.15 and the percentile 95% CI 0.04, 0.14 excluded zero, confirming the statistical reliability of this effect. Thus, H4 was accepted. This indicates that authentic leaders build trust, and this trust, in turn, creates a climate of psychological safety, which ultimately leads to greater workplace flourishing. However, this sequential pathway was not significant for transformational leadership ($\beta = 0.02$). Both the bias-corrected 95% CI -0.01 , 0.06 – 0.01 , 0.06 and the percentile 95% CI -0.02 , 0.05 – 0.02 , 0.05 included zero. This finding provides an explanation for the parallel mediation results; for authentic leaders, trust is not a dead end—it is a crucial building block that enables the psychological safety necessary for flourishing. For transformational leaders, this sequential process does not hold, and psychological safety operates as a direct and independent mechanism.

Multi-group analysis—Invariance of mediation paths. We tested for measurement invariance and structural path invariance across (a) gender (male vs. female) and (b) rank (Commissioned Officers vs. Non-Commissioned Officers). Invariance was assessed by comparing a constrained model (where paths were forced to be equal across groups) to an unconstrained model (where paths were free to vary). Following established guidelines (Chen, 2007; Cheung & Rensvold, 2002), evidence for invariance is indicated by a change in Comparative Fit Index (ΔCFI) of ≤ 0.01 between the constrained and unconstrained models.

Invariance across gender. The sample comprised 191 male and 101 female personnel. Configural invariance (the baseline model) showed an acceptable fit for both groups simultaneously. Constraining the mediation paths to be equal across males and females did not result in a significant deterioration of model fit ($\Delta CFI = 0.004$, which is ≤ 0.01). This indicates that the structural relationships

including the mediating roles of trust and psychological safety operate similarly for both male and female personnel in this military context.

Invariance across rank. The sample included 144 Commissioned Officers and 148 Non-Commissioned Officers. Configural invariance was established. Constraining the mediation paths to be equal across ranks also yielded a non-significant change in model fit ($\Delta CFI = 0.007$, ≤ 0.01). This finding suggests that the mediated pathways from leadership styles to workplace flourishing through trust and psychological safety are consistent and robust across different hierarchical levels within the Ghana Armed Forces.

Interviews

Thematic analysis of the interview data was conducted to provide a context-rich explanation for the quantitative findings, particularly the divergent mediating roles of trust and psychological safety across leadership styles. To ensure the reliability and trustworthiness of the thematic analysis, an inter-coder reliability assessment was conducted. A second coder, independent to the research team, was trained on the coding framework and independently coded a randomly selected subset of the interview transcripts (approximately 30%, $n = 6$ interviews). The coding outputs from both coders were compared, and Cohen's kappa (κ) was calculated to assess the level of agreement beyond chance. The analysis yielded a Cohen's kappa coefficient of $\kappa = 0.85$, which exceeds the recommended threshold of 0.80 (Landis & Koch, 1977), indicating excellent inter-coder reliability and strong consistency in the application of the thematic framework.

The demographic characteristics of the interviewees, including pseudonyms, gender, age range, force branch, rank, and years of service, are presented in Table 9. This diverse sample ensured representation across ranks, branches, and experience levels, providing a comprehensive view of leadership dynamics within the GAF.

Three primary themes emerged, which are summarized in Table 10.

Theme 1: The Hierarchy as a dual-faced reality. Participants did not question the necessity of the chain of command; they expressed deep trust in it for operational success. However, this very same structure was identified as the primary inhibitor of psychological safety. This critical distinction explains the quantitative finding that trust was a weak or non-significant mediator. As one Warrant Officer puts it, “I would trust my Major with my life, but I would not feel safe telling him his tactical plan is flawed unless he explicitly asks.” This theme establishes the contextual boundary condition: the hierarchy creates an environment where trust and psychological safety are decoupled. Trust is placed in the person and the rank, but psychological safety, the freedom to speak up with potentially challenging information requires an additional, deliberate act from the leader to be realized.

Theme 2: The authentic leader as an architect of safety. Participants described how certain leaders, predominantly those described with authentic traits, proactively engineered psychological safety. Their methods were behavioral and specific: admitting personal mistakes to

Table 9. Demographic characteristics of interview participants (n = 18)

Pseudonym	Gender	Age (years)	Force	Rank	Length of service
GAF-01	Male	18–29	Army	Lance corporal	4 years
GAF-02	Female	18–29	Army	Sergeant	6 years
GAF-03	Female	30–39	Navy	Able Seaman	5 years
GAF-04	Male	18–29	Airforce	Sergeant	3 years
GAF-05	Male	30–39	Airforce	Warrant officer class 2	5 years
GAF-06	Male	30–39	Navy	Warrant officer class 2	6 years
GAF-07	Male	30–39	Airforce	Sergeant	4 years
GAF-08	Female	30–39	Navy	Leading seaman	5 years
GAF-09	Male	18–29	Army	Corporal	4 years
GAF-10	Male	30–39	Navy	Warrant officer class 1	5 years
GAF-SOF-11	Male	40–49	Airforce	Wing commander	16 years
GAF-SOF-12	Male	40–49	Navy	Lieutenant commander	15 years
GAF-SOF-13	Male	30–39	Navy	Commander	10 years
GAF-SOF-14	Female	40–49	Army	Major	15 years
GAF-SOF-15	Female	40–49	Army	Major	11 years
GAF-SOF-16	Female	30–39	Army	Captain	9 years
GAF-SOF-17	Male	30–39	Army	Major	10 years
GAF-SOF-18	Male	30–39	Navy	Lieutenant	8 years

Note. GAF = Ghana Armed Forces; GAF-SOF = Ghana Armed Forces-Senior Officer.

Table 10. Summary of qualitative themes and their relationship to quantitative findings

Theme	Core insight	Representative quotation	Explanation of quantitative finding
1. The hierarchy as a dual-faced reality	The military hierarchy is a trusted system for order but an inherent barrier to open communication.	“You trust the rank and the system. It keeps you safe in combat. But that same rank makes you hold your tongue in the briefing room. You don’t want to be the one to question a superior’s plan, even if you trust his intentions.” (Senior NCO)	Explains the weak mediation of Trust for TFL: Trust in the system and leader intentions exist, but it does not automatically create safety for interpersonal risk-taking.
2. The authentic leader as an architect of safety	Authentic leaders actively dismantle hierarchical barriers through transparency, vulnerability, and inclusive inquiry.	“My commander did something simple but powerful. He ended every briefing by asking, ‘What am I missing?’ and then waited in silence. The first time, no one spoke. But he kept doing it. Soon, people started talking. He showed he was fallible, and that made it safe for us to be fallible too.” (Junior Officer)	Explains the strong mediation of PSS for AL and the sequential pathway (AL → Trust → PSS): AL behaviors directly model and build PSS. The leader’s genuine inquiry (AL) builds trust, which in turn encourages the risk to speak up (PSS).
3. Flourishing as intermittent psychological freedom	Flourishing is not a constant state but is experienced in moments when psychological safety allows for authentic self-expression and contribution.	“You can’t be ‘flourishing’ all the time here; the job is too hard. But there are moments—when your idea is heard in a planning session, when your team laughs together after a hard day, when you feel your contribution matters, that’s when you feel it. It’s a feeling of being truly effective and connected, not just a cog in the machine.” (Corporal)	Explains the strong direct path from PSS to WPF: The qualitative data defines WPF not as a static score but as a positive psychological state that is directly enabled in climates of safety.

model vulnerability, formally instituting “challenge sessions” where rank was temporarily set aside, and holding one-on-one meetings to provide a private channel for feedback. These deliberate actions did more than inspire; they built trust through demonstrated integrity and then that trust is used as a foundation to create a safe space

for dialogue. This provides the “why” behind the significant sequential mediation (AL → Trust → Psychological Safety → WPF) found in the quantitative data. As one Junior Officer explained:

“My commander did something simple but powerful. He ended every briefing by asking, ‘What am I missing?’

and then waited in silence. The first time, no one spoke. But he kept doing it. Soon, people started talking. He showed he was fallible, and that made it safe for us to be fallible too" (GAF-SOF-16, Junior Officer).

Transformational leaders were valued for vision and motivation but did not consistently engage in behaviours that actively build psychological safety. In contrast, authentic leadership generally supported openness and trust. However, a deviant case highlights an important boundary condition. A senior officer who practiced transparency by sharing operational challenges found that subordinates interpreted this openness as weakness, leading them to seek guidance elsewhere. What was intended as authenticity was perceived as reduced confidence.

"I thought I was being transparent, you know? I shared the challenges we were facing with the unit—budget cuts, personnel shortages, the whole picture. I wanted them to understand the 'why' behind the pressure. But later, I found out that some of the younger soldiers interpreted my openness as weakness or indecisiveness" (GAF-SOF-13, Senior Officer).

This case suggests that the effectiveness of authentic leadership, particularly relational transparency is context-dependent in high-stakes military environments. Expressions of vulnerability must be carefully calibrated and balanced with visible authority and decisiveness. Otherwise, they may undermine, rather than enhance, psychological safety.

The finding refines theory by showing that authentic leadership is not universally effective; its impact depends on follower expectations, hierarchical norms, and situational demands. Leaders must therefore adapt how authenticity is communicated to align with the cultural and operational realities of their context.

Theme 3: Flourishing as intermittent psychological freedom. The qualitative data profoundly refines the understanding of workplace flourishing in this context. It is not a permanent, high-level state of well-being. Instead, it is experienced as intermittent episodes of psychological freedom that occur when the constraints of the hierarchy are temporarily lifted by psychological safety. In these moments, personnel reported experiencing the core dimensions of flourishing: a sense of meaning (their input mattered), engagement (they could focus fully on problem-solving), and positive relationships (genuine collaboration with peers and superiors) (Seligman, 2011). This theme directly links the mediator (PSS) to the outcome (WPF), showing that safety is the trigger for the lived experience of flourishing at work.

Discussion

The study examined the mediating roles of psychological safety and trust in the relationships between transformational leadership, authentic leadership, and workplace flourishing. Combining quantitative and qualitative evidence revealed that leadership development programmes should move beyond inspirational training to building leaders' capacity to foster psychological safety. The findings contribute to the discourse on the disentanglement of the mediating roles of trust and psychological safety

through the integrated lenses of Social Exchange Theory (SET) and the Job Demands-Resources (JD-R) model.

For transformational leadership, the path to flourishing was exclusively through psychological safety, with trust playing no mediating role. The relationship operated through indirect-only mediation, as the direct effect was non-significant while the indirect effect was significant. The JD-R model explains this finding: in a high-demand military hierarchy, transformational leaders' inspirational motivation remains ineffective unless they first provide psychological safety to buffer against the interpersonal risks of speaking up. Trust alone fails to mediate because it represents confidence in the leader without addressing the situational demand of hierarchical pressure. For authentic leadership, the pathway was more complex, illustrating a positive social exchange cycle. Authentic leadership had both a direct effect on flourishing and significant indirect effects through both trust and psychological safety. The sequential mediation analysis revealed the critical causal chain $AL \rightarrow Trust \rightarrow Psychological\ Safety \rightarrow Flourishing$. This pathway exemplifies core SET principles: the authentic leader's transparency builds follower trust, which enables greater risk-taking, creating psychological safety, ultimately resulting in flourishing. Here, psychological safety acted as complementary mediation (partial mediation), as both direct and indirect effects were significant.

Our qualitative data provides context-specific validation for these explanations. The theme of "The Hierarchy as a Dual-Faced Reality" explains the trust-PSS decoupling through the JD-R lens: soldiers trusted the system, but the hierarchical structure remained an unmet job demand that psychological safety specifically addressed. The theme of "The Authentic Leader as an Architect of Safety" illustrates the SET sequential pathway, showing how leaders use transparent behaviors to build trust and then actively engineer psychological safety. Finally, "Flourishing as Intermittent Psychological Freedom" reframes flourishing as dynamic experiences enabled when psychological safety creates conditions for authentic self-expression.

Our findings both confirm and contradict existing literature. The indirect-only mediation of psychological safety for TFL aligns with Edmondson's (1999, 2018) work on the importance of safety for team learning but extends it to holistic well-being. However, it contrasts with Liu et al. (2010) and Liu et al. (2023), who found trust to be a significant mediator for TFL. This discrepancy can be attributed to the unique, high-stakes hierarchy of the military, creating a boundary condition for the trust-flourishing relationship. The strong performance of authentic leadership, particularly through the sequential pathway, aligns with Walumbwa et al. (2008) and Kleynhans et al. (2022), providing a mechanistic explanation for why authentic leadership works: it builds trust as a steppingstone to psychological safety. This resonates with Gardner et al. (2021), who assert that relational transparency is critical for effective leadership in military settings.

While our theoretical lense posits that leader behaviors shape follower outcomes, we acknowledge the possibility of reverse causality. This alternative explanation is less likely for several reasons. First, if reverse causality

were the primary driver, flourishing would be significantly associated with both leadership styles. However, our results show a differentiated pattern: flourishing was significantly associated with authentic leadership but not with transformational leadership in the structural model. Second, the sequential mediation finding (AL → Trust → Psychological Safety → WPF) provides evidence of a theoretically coherent causal chain, consistent with the proposed direction. As Maxwell and Cole (2007) note, mediation analyses with strong theoretical grounding can provide meaningful evidence for hypothesized directional relationships, even with cross-sectional data. Nevertheless, we acknowledge that bidirectional relationships are possible. Flourishing employees may be more cognitively available to recognize authentic leader behaviors, creating a virtuous cycle where leadership and well-being reinforce each other (Inceoglu et al., 2018).

Implications for research and practice

This study advances leadership theory by demonstrating that psychological safety is a central explanatory mechanism linking leadership to workplace flourishing in high-reliability, hierarchical contexts. This is consistent with Edmondson's (2018) argument. The results clarify that trust alone is insufficient; rather, psychological safety represents the critical pathway through which leadership behaviours translate into well-being outcomes. This contributes to the affective events framework by highlighting the contextual constraints of hierarchy and the conditional role of mediators in military settings.

Practically, the findings call for a recalibration of leadership development within the Ghana Armed Forces and similar institutions. Training should extend beyond transformational leadership competencies to deliberately build skills in fostering psychological safety, such as non-punitive inquiry, active listening, and leader fallibility. Authentic leadership should be embedded as a core leadership competency, with emphasis on relational transparency and ethical consistency. A key practical recommendation emerging from our qualitative findings is the institutionalization of "challenge sessions"—structured forums where rank is temporarily set aside to encourage open dialogue and feedback.

Limitations and future directions

Despite this study's novelty, there are some limitations. First, the sample was confined to military personnel stationed at a single tri-service facility rather than a frontline combat or field battalion setting. This may limit the generalizability of the results. Future research should explicitly test the model's generalizability by replicating this study in frontline combat units, peacekeeping mission contingents, and other high-reliability military contexts to establish the boundary conditions of our findings. Second, given the sensitive nature of research within a hierarchical military institution, we acknowledge the potential risk of reprisal. To mitigate this risk, rigorous data protection protocols were implemented, including anonymization at source, encryption of all digital data, a five-year data deletion timeline, aggregate reporting of findings, and institutional oversight through ethical approval from both

the University of Ghana Ethics Committee for Humanities and the 37 Military Hospital Institutional Review Board. Future qualitative research in military contexts should consider even more stringent measures, such as member checking with aggregated findings rather than individual transcripts. Third, the cross-sectional design, while enriched by mixed methods, prevents definitive causal conclusions. Future research should employ longitudinal designs with cross-lagged panel analysis to firmly establish the causal sequence. Fourth, the use of self-report data may introduce common method bias, though procedural remedies were applied and marker variable analysis suggested this was not a significant concern.

Conclusion

This study offers several strengths—the mixed-methods design provided a deeper, context-rich understanding of the statistical relationships identified. The rigorous validation of the measurement model through CFA and the establishment of discriminant validity between trust and psychological safety strengthen the credibility of the findings. Additionally, the multi-group invariance tests confirmed that the mediation model is robust across gender and rank subgroups within the Ghana Armed Forces.

Similarly, this research demonstrates that in the hierarchical context of the Ghana Armed Forces, psychological safety is a more powerful conduit than trust for the influence of leadership on employee flourishing. Transformational leaders, in particular, depend entirely on creating this safety to enhance well-being. For practitioners, the message is clear: developing leaders who can architect psychologically safe climates is not a soft skill, but a strategic imperative for building a resilient and flourishing fighting force.

Also, this study makes a significant contribution to the growing field of African Industrial-Organizational psychology. It moves beyond simply applying Western-developed constructs and theories to an African context and instead demonstrates how that context, in this case, the unique hierarchical structure of a Ghanaian military institution, shapes the relationships between those constructs. The finding that trust is an insufficient mediator challenges a universalist assumption and highlights the need for context-sensitive models. This aligns with the urgent call within African I-O psychology to produce localized knowledge that is both scientifically rigorous and practically relevant for the continent's unique organizational challenges.

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Availability of Data and Materials: Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

Ethics Approval: Ethical clearance was obtained and approved by the Ethics Committee for Humanities at the University of Ghana (ECH 178/23-24). Additionally, approval was obtained from the Institutional Review Board (IRB) at the Military Organization to proceed with the study (37MH-IRB/PhD/IPN/890/2024). Data collection began with the support of unit commanders on-site. Consent of participants were sought. They were informed about the study's aim, confidentiality and voluntary participation. Questionnaires were completed during personal time. Participants were assured that their information would be kept confidential. It was clearly stated that the data would only be shared with the research team and used for academic purposes.

Conflicts of Interest: The authors declare no conflicts of interest.

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